

REMARKS

Claims 40-49 are pending. Previously pending claims 1-39 have been cancelled and new claims drafted for technical clarity and ease of examination. The applicants reserve the right to pursue claims of similar scope as claims 1, 2, 29, and 30 in further applications. Support for new claims 40-49 derives from the specification and claims as originally filed, as well as from cancelled claims 1-39, and Table 1. Accordingly, the amendments do not present new matter and entry is proper.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 1-7, 14, 29-30 and 34-39 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner's main point appears to be in rejecting claims 1, 29-30 and 38, that a reference protein is not provided. Applicants have cancelled claims 1, 29-30 and 38 and thus the rejection is moot as applied to these claims.

Applicants respectfully submit that this rejection does not apply to newly added claims 40-49 because a reference protein has been provided. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1, 29-30 and 38 under 35 U.S.C. § 112, second paragraph.

Similarly, the Examiner's main point appears to be in rejecting claims 3-7, 34-37 and 39 that a reference protein is not provided. Applicants have cancelled claims -7, 34-37 and 39 and thus the rejection is moot as applied to these claims.

Applicants respectfully submit that this rejection does not apply to newly added claims 40-49 because the specification discloses methods of making non-naturally occurring integrin protein comprising four or more amino acid substitutions as compared to. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 3-7, 34-37 and 39 under U.S.C. § 112, second paragraph.

Claim 38 is rejected for reciting “less than about”. Claim 38 has been cancelled and thus the rejection is moot as applied to claim 38. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 38 under U.S.C. § 112, second paragraph.

Rejections under 35 U.S.C. § 112, first paragraph

Claims 1-7, 14, 29-30, and 34-39 stand rejected under 35 U.S.C. § 112, first paragraph for lack of enablement.

The Examiner’s main point appears to be in rejecting claims 1-7, 14, 29-30 and 34-39 that the specification does not provide enablement for any structurally biased integrin I domain protein comprising an amino acid sequence that is less than 98% identical to human integrin I. Claims 1-7, 14, 29-30 and 34-39 have been cancelled and thus the rejection is moot as applied to claims 1-7, 14, 29-30 and 34-39.

Applicants respectfully submit that this rejection does not apply to newly added claims 40-49 because these claims are directed to non-naturally occurring integrin proteins having four or more amino acid substitutions as compared to the human integrin protein of SEQ ID NO.:1, wherein said substitutions selected from defined amino acid residues. The specified residues at which amino acid substitutions can

occur are described throughout the specification, i.e. see Examples 1, 2 and Table 1. Accordingly, Applicants respectfully request that the rejection of Claims 1-7, 14, 29-30, and 34-39 under U.S.C. § 112, first paragraph be withdrawn.

Claims 1-7, 14, 29-30, and 34-39 stand rejected under 35 U.S.C. § 112, first paragraph as lacking written description.

The Examiner's main point appears to be in rejecting claims 1-7, 14, 29-30, and 34-39 that one of skill in art could not envisage the claimed genus of variants, wherein the variant is less than 98% identical to an integrin protein. Claims 1-7, 14, 29-30 and 34-39 have been cancelled and thus the rejection is moot as applied to claims 1-7, 14, 29-30 and 34-39.

Applicants respectfully submit that this rejection does not apply to newly added claims 40-49 because these claims are directed to non-naturally occurring integrin proteins having four or more amino acid substitutions as compared to the human integrin protein of SEQ ID NO.:1, wherein said substitutions selected from defined amino acid residues. The specified residues at which amino acid substitutions can occur, methods of making and testing the resulting variants are described throughout the specification, i.e. see Examples 1, 2 and Table 1. Thus, Applicants submit that a person of skill in the art could envisage the genus of variants as disclosed in claims 40-49. Accordingly, Applicants respectfully request that the rejection of Claims 1-7, 14, 29-30, and 34-39 under U.S.C. § 112, first paragraph be withdrawn.

Rejection under 35 U.S.C. § 102(b)

Claim 38 is rejected under 35 U.S.C. § 102(b) as being anticipated by Huang, *et al.* (1995) *Journal of Biological Chemistry* 270:19008-19016 (IDS Ref. No. C22).

Claim 38 has been cancelled, and thus the rejection is moot. Applicants respectfully request the rejection under 35 U.S.C. § 102(b) be withdrawn.

Applicants respectfully submit that the claims are now in condition for allowance and an early notification of such is solicited. If, upon review, the Examiner feels there are additional outstanding issues, the Examiner is invited to call the undersigned attorney at (415) 781-1989.

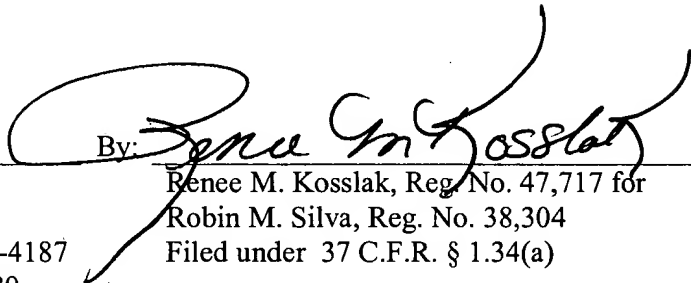
Respectfully submitted,

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